Subject Index

Volume 27, 1994

Page numbers followed by (Abs) denote abstracts from the Twentieth Congress on Electrocardiology

Activation spread
and spatial distribution of repolarization properties, 115
Afterdepolarizations
cocaine affecting, 35
Altitude
and ECG in sickle cell trait, 215
Ambulatory ECG
in assessment of class III antiarrhythmic drugs (Abs), 178
circadian heart rate variability in, 251
in detection of transient myocardial ischemia (Abs), 181
Anesthetic agents
effects on infarcted heart, 41
Angioplasty, percutaneous transluminal
transient ischemia from
and changes in QRS axis (Abs), 182
frontal plane electric axis in (Abs), 179
QRS potential changes in, 311
Anisotropy
and spatial distribution of repolarization properties, 115
ventricular fibrillation in (Abs), 185
Aortic regurgitation
repolarization strain pattern in, 189
Aortic stenosis
initial QRS in
in concentric ventricular hypertrophy, 301
in pulmonic or aortic stenosis (Abs), 186
Arrhythmias. *See also* Fibrillation; Tachycardia
and potassium channel blocking actions of class III antiarrhythmic drugs (Abs), 178
suppression by cocaine, 35
ventricular
affected by anesthetics in infarction, 41
pressure-related, 199
Atherosclerosis. *See* Coronary artery disease
Atria
supernormal conduction in humans, 61
Atrial fibrillation
ventricular rate and cardiac output in, 163
Atrioventricular block
complete, exercise-induced, 339
Atrioventricular node
atypical junctional reentry in supraventricular tachycardia, 79
multiple pathways in AV node reentry, 71
Autonomic nervous system
assessment with power spectral analysis of heart rate variability in rats, 337

Bifascicular block
and exercise-induced AV block, 339
Blood pressure
and ventricular arrhythmias with QRS duration changes, 199
Body surface area
and impedance load in radiofrequency ablation, 329
Body surface potential maps
affected by remodeling after infarction, 29
in aortic or pulmonic stenosis, initial QRS in (Abs), 186
in localization of accessory pathways in Wolff-Parkinson-White syndrome (Abs), 180
and QRS potentials recorded in transient induced ischemia, 315
sensitivity to electrode positions in, 255
torso inhomogeneities affecting, in model studies (Abs), 178
Book review, 97

Caffeine
and calcium-dependent oscillations, 105

Calcium
cardiac release channels affected by ryanodine and caffeine, 105
serum levels related to ECG in hyperparathyroidism, 99
Cardiac output
and ventricular rate in atrial fibrillation, 163
Cardiomyopathy
dilated, ECG features of, 323
Case reports
atypical AV junctional reentrant tachycardia, 79
exercise-induced complete heart block, 339
multiple AV nodal pathways, 71
sick sinus syndrome in hemochromatosis, 91
terfenadine-induced torsade de pointes, 343
Catheter ablation. *See* Radiofrequency ablation
Chaos
and complex dynamic order in ventricular fibrillation, 287
Chelating agents
in hemochromatosis with sick sinus syndrome, 91
Chemical infarctions
ECG features of, 263
Children
heart rate variability in newborns (Abs), 179
radiofrequency ablation in, 329
Circadian heart rate
in Holter recordings, 251
Cocaine
arrhythmias suppressed by, 35
Computer analysis
of constitutional variables affecting magnetocardiogram, 233
of diagnostic exercise ECG classifiers, 11
interpretations of ECGs and vectorcardiograms (Abs), 184
of magnetocardiogram and normal vector ECG, 221
and panoramic display of standard 12-lead ECG, 347
Computer models
activation spread affecting spatial repolarization distribution, 115
complex dyamic order in ventricular fibrillation, 287
cycle length affecting torsade de pointes, 1
entrainment of reentrant tachycardia, 277
initial QRS vectors in concentric ventricular hypertrophy, 301
postischemic T wave inversion (Abs), 184
torso inhomogeneities affecting cardiac electric field (Abs), 178
ventricular fibrillation in anisotropic heart (Abs), 185
Conduction
atrial, supernormal, 61
ventricular
defects of, repolarization patterns in (Abs), 181
pressure elevation affecting, 199
Contraction-excitation feedback
and ventricular pressure-related arrhythmias, 199
Coronary artery disease
and computer analysis of diagnostic exercise ECG classifiers, 11
dipolar electrocardiotopography in, 149
and exercise affecting QRS duration in "walkthrough" angina, 209
infarction in. *See* Myocardial infarction
resting U wave polarity in, 157
transient ischemia in
detection with ambulatory ECG (Abs), 181
and frontal electric axis deviation (Abs), 179
QRS axis changes in (Abs), 182
QRS potentials recorded in, 311
Cosinor analysis
of respiration effects on QT interval, 143
Cycle length
related to torsade de pointes, 1

Diabetes mellitus
vectorcardiography in (Abs), 183
Dipolar electrocardiotopography
in coronary artery disease, 149
Dofetilide
potassium channel blocking actions of (Abs), 178

Ejection fraction
left ventricular, prediction with R peak times, 129
Electrode positions
affecting body surface mapping, 255
Electrophysiology testing
in exercise-induced AV block, 339
Electrotonus
and activation spread affecting repolarization properties, 115
Enflurane
effects on infarcted heart, 41
Entrainment
in reentrant tachycardia, 277
Exercise tests
complete AV block induced in, 339
magnetocardiography in, 137
performance of diagnostic classifiers in, 11
and QRS duration in "walkthrough" angina, 209
in sickle cell trait, 215
Extrasystole
differentiated from parasystole, 169

Fibrillation
atrial
ventricular rate and cardiac output in, 163
ventricular
complex dynamic order in, 287
in myocardial anisotropy (Abs), 185
Frequency analysis
and heart rate variability in high-resolution ECGs (Abs), 186
Frontal plane axis
and panoramic display of standard 12-lead ECG, 347
in transient induced ischemia (Abs), 179
Fuzzy sets
in dipolar electrocardiotopography, 149

Halothane
effects on infarcted heart, 41
Heart block
complete atrioventricular, exercise-induced, 339
Heart rate
redefinition of normal sinus rhythm (Abs), 182
variability of
and complex dynamic order in ventricular fibrillation, 287
and frequency analysis of high-resolutions ECGs (Abs), 186
in Holter recordings, 251
in newborns (Abs), 179
power spectral analysis in rats, 333
Hemochromatosis
cardiac, sick sinus syndrome in, 91
Holter monitoring. *See* Ambulatory ECG
Hyperparathyroidism
electrocardiography in, 99
Hypertrophy
left ventricular
and ECG features of dilated cardiomyopathy, 323
estimates with ECGs (Abs), 184
initial QRS vectors in, 301
right ventricular
lead I of ECG in, 23
Hypoxia
and ECG in sickle cell trait, 215

Impedance
in radiofrequency ablation, body surface area affecting, 329
Infarction. *See* Myocardial infarction
Ischemic heart disease. *See* Coronary artery disease
Isoflurane
effects on infarcted heart, 41

Late potentials
in long QT syndrome (Abs), 180
measurements with signal-averaged ECGs, 353
Lead I of ECG
in right ventricular hypertrophy, 23
Long QT syndrome
late potentials in (Abs), 180
terfenadine-induced torsade de pointes in, 343

Magnetocardiography
compared to normal vector ECG, 221
constitutional variables affecting, 233
in exercise testing, 137
Mechanoelectrical association
and ventricular pressure-related arrhythmias, 199
Memory T waves
postablation, in Wolff-Parkinson-White syndrome, 243
Mitral regurgitation
R peak time prolongation and delay in, 129

Myocardial infarction
anterior Q wave, affecting left ventricular remodeling (abs), 177
and effects of anesthetics in canine model, 41
experimental, in free left ventricular walls, 263
inverted T waves in (Abs), 177
remodeling affecting body surface potential maps in, 29
right ventricular, discordant ECG pattern in, 203
time-frequency mapping of QRS complex in, 49

Newborns
heart rate variability in (Abs), 179
Noise
and signal-averaged ECGs, 353

Obituary
Lepeschkin, Eugene, 275
Oscillatory potentials
ryanodine and caffine affecting, 105

Pacemakers
failure in hemochromatosis with sick sinus syndrome, 91
Panoramic display
for standard 12-lead ECG, 347
Papillary muscles
cocaine affecting, 35
Parasystole
vagal stimulation in, 169
Polarity of U waves
in coronary artery disease, 157
Potassium
channel blocking actions of class III antiarrhythmic drugs (Abs), 178
Pulmonic stenosis
initial QRS in (Abs), 186
Purkinje fibers
activity affected by ryanodine and caffeine, 105

Q waves
in anterior infarction, and left ventricular remodeling (Abs), 177
QRS complex
axis changes in transient myocardial ischemia (Abs), 182
duration of
acute ventricular pressure changes affecting, 199
exercise affecting, in "walkthrough" angina, 209
initial vector changes in concentric ventricular hypertrophy, 301
potentials recorded in transient induced ischemia, 311
in pulmonic stenosis, compared to aortic stenosis (Abs), 186
relation to serum calcium in hyperparathyroidism, 99
time-frequency mapping of, 49

QT interval
and long QT syndrome
late potentials in (Abs), 180
terfenadine-induced torsade de pointes in, 343
respiration affecting, 143

R waves
peak time prolongation and delay in mitral regurgitation, 129
Radiofrequency ablation
atypical AV junctional reentrant tachycardia after, 79
body surface area affecting impedance in, 329
and memory T waves in Wolff-Parkinson-White syndrome, 243
Reentrant tachycardia
entrainment in, 277
Reentry
atrioventricular nodal, multiple pathways in, 71
circuits for, and ventricular fibrillation rate, 287
and torsade de pointes initiation, 1
Refractory period dispersion
and torsade de pointes initiation, 1
Remodeling of ventricles, postinfarction
affecting body surface potential maps, 29
after anterior Q wave infarction (Abs), 177
Repolarization
spatial distribution affected by activation sequence, 115
strain pattern in aortic regurgitation, 189
ventricular patterns in conduction defects (abs), 181
Respiration
affecting QT interval, 143
Ryanodine
and calcium-dependent oscillations, 105

Self-organization
and complex dynamic order in ventricular fibrillation, 287
Serial ECGs
panoramic display of, 347
Sick sinus syndrome
in cardiac hemochromatosis, 91
Sickle cell trait
ECG changes in, 215
Signal-averaged ECGs
limitations of, 353
Sinus rhythm
normal, redefinition of (Abs), 182
d-Sotalol
potassium channel blocking actions of (Abs), 178
Spectral analysis
of heart rate variability in rat, 333
in Holter recordings of circadian heart rate, 251
ST-segment
elevation in lead V_1 and depression in lead V_2, 203
relation to serum calcium in hyperparathyroidism, 99
variations in magnetocardiographic exercise test, 137
Supernormal atrial conduction
in humans, 61

T waves
computer simulation of postischemic inversion (Abs), 184
inversion in myocardial infarction (Abs), 177
postablation memory waves, 243
relation to serum calcium in hyperparathyroidism, 99
Tachycardia
paroxysmal supraventricular
atypical AV junctional reentry in, 79
multiple AV nodal pathways in, 71
reentrant
entrainment in, 277
Telemetry system
and power spectral analysis of heart rate variability in rats, 333
Terfenadine
inducing torsade de pointes, 343
Time-frequency mapping
of QRS complex, 49
Torsade de pointes
cycle length affecting, 1
terfenadine-induced, 343
Triggered activity
cocaine affecting, 35

U waves
resting polarity in coronary artery disease, 157
as second ventricular depolarizations (Abs), 178

Vagal stimulation
in parasystole, 169
Vectorcardiography
compared to normal vector magnetocardiogram, 221
computerized interpretation of (Abs), 184
constitutional variables affecting, 233
in diabetes mellitus (Abs), 183
and dipolar electrocardiotopography in coronary artery disease, 149
initial QRS vectors in concentric ventricular hypertrophy, 301
Ventricles
activation in infarcted hearts
anesthetic agents affecting, 41
and time-frequency mapping of QRS complex, 49
acute pressure changes affecting QRS duration, 199
assessment of ECG in aortic regurgitation, 189
left
ejection fraction prediction with R peak times, 129
experimental infarction of free walls, 263
geometry affecting initial QRS vectors in concentric hypertrophy, 301
hypertrophy of. *See* Hypertropy, left ventricular
rate affecting cardiac output in atrial fibrillation, 163
remodeling after infarction
affecting body surface potential maps, 29
after anterior Q wave infarction (Abs), 177
repolarization patterns in conduction defects (Abs), 181
right
ECG signs of hypertrophy, 23

infarction with discordant ECG pattern, 203
second depolarizations expressed by U waves (Abs), 178
Ventricular fibrillation
complex dynamic order in, 287
in myocardial anisotropy (Abs), 185
Wigner distribution
in time-frequency mapping of QRS complex, 49
Wolff-Parkinson-White syndrome
body surface maps to localize accessory pathways in (Abs), 180
postablation memory T waves in, 243

Author Index

Volume 27, 1994

Abildskov, J. A., 1, 277
Agretto, A., 183
Akaishi, M., 178
Akyol, Turhan, 157
Anderson, Stanley T., 347
Antalóczy, Zoltán, 23
Asakura, Y., 178
Auricchio, U., 183

Badano, Luigi, 189
Badilini, F., 181
Baerman, Jeffrey, 79
Bailey, James J., 347
Bakosova, Magdalena, 29
Barold, S. Serge, 347
Basualdo, C. A., 177
Belloti, G., 180
Benhorin, J., 181
Berson, Alan S., 347
Bhargava, Valmik, 353
Bhattacharyya, Mohit Lal, 105
Black, C.-J., 185
Brandão, Adelaide, 251
Brockmeier, K., 137
Brohet, C., 184
Bulas, Jozef, 29
Burgess, Mary Jo, 115
Byrne, John M., 339

Calhoun, H. P., 182
Carpentier, Robert G., 35
Carvalho, Mário J., 251
Centurion, Osmar Antonio, 61, 71
Cheek, Gregory A., 339
Chen, Ming-Fong, 163
Chen, Wen-Jone, 91
Chia, B. L., 203
Clemmensen, Peter, 347
Comani, S., 137
Coppolino, P., 183
Costa, Ovídio, 251

Dee, D., 184
de Freitas, Falcão, 251
Della Rovere, Francesco, 189
de Micheli, Alfredo, 263
Derwael, C., 184
Detweiler, D. K., 97
Di Luzio, S., 137
Dohi, K., 177
Doi, T., 182
Dower, Gordon E., 347

Eda, S., 179
Ehlert, Frederick, 79
Elko, Paul P., 347
Endo, S., 182
Erné, S. N., 137

Feistel, Herbert, 129
Fiehring, H., 186
Freitas, António, 251
Freitas, João, 251
Fujimoto, S., 177
Fukuki, M., 182
Furuta, T., 179

Galen, Peter, 347
Gansser, Rolf, 129
Gehring, J., 185
Georgiev, B. G., 178
Giunta, Luca, 189
Goldberger, Jeffrey, 79
Gregory, Gavin, 215
Gürlek, Adalet, 157

Hadden, W., 183
Haisty, Wesley K., Jr, 347
Hall, W. J., 181
Halperin, Blair D., 329
Hamel, Denis, 311
Hano Osamu, 61
Harumi, K., 184, 185
Hashimoto, Hisakuni, 41
Hashimoto, Shin-ichi, 333
Hashimoto, T., 177
Hatala, Robert, 49
Hayano, Motonobu, 71
Helguera, Marcelo E., 243
Hense, H.-W., 185
Hirata, Tetsuya, 61
Holcomb, Scott R., 329
Hoshio, A., 182
Hulin, Ivan, 29

Iacono, A., 183
Iarussi, D., 183
Ikeda, Kazuyuki, 41
Imamura, Satoshi, 41
Inoue, S., 178
Irace, L., 183
Ishii, Keiji, 337
Ishikawa, H., 177
Isomoto, Shojiro, 61, 71
Ito, Yoshito, 169

Johan, A., 203
Jugdutt, B. I., 177

Kadish, Alan, 79
Kagoshima, T., 177
Kaibara, Muneshige, 61
Kaiser, E., 180
Kanáliková, Katarína, 301
Kasahara, T., 182
Kasama, M., 184
Käsmacher-Leidinger, H., 287
Khan, M. I., 177
Kim, Sam Soo, 343
Kimura, Mitsuru, 323
Kinoshita, Makoto, 169
Kinoshita, Shinji, 169
Kleiner, H. J., 186
Kneppo, Peter, 255
Koh, Kwang Kon, 343
Kondoh, M., 184
Konishi, Go, 169
Konishi, J., 179
Konoe, Atsushi, 61
Kornreich, Fred, 347
Kostis, Evangelos B., 199
Kostopoulos, Konstantinos, 199
Kotake, H., 182
Kozlikova, Katarina, 29
Kron, Jack, 329
Krucoff, Mitchell W., 347
Kurths, J., 186
Kuwahara, Masayoshi, 333

Lago, Pedro, 251
Laks, Michael, 347
Lee, Yuan-Teh, 91, 163
Lehtinen, Rami, 11
Li, G. P., 184
Li, Zhixing, 49
Liau, Chiau-Suong, 91, 163
Liebman, J., 186
Lin, Fang-Yue, 163
Lind, Lars, 99
Lipke, K., 179
Ljunghall, Sverker, 99
Lucatti, Alberto, 189
Lux, Robert L., 1, 277

Macfarlane, Peter W., 347
Mak, K. H., 203
Malmivuo, Jaakko, 11, 221, 233
Marais, John, 339
Marienhagen, Jörg, 129
Marriott, Henry J. L., 347
Mashiba, H., 182
Mashima, S., 184
Medrano, Gustavo A., 263
Medvegy, Mihály, 23
Miccoli, Fiorenzo, 189
Michaelides, Andreas P., 209
Mitamura, Hideo, 178, 323
Miyazaki, T., 178
Moffa, P. J., 180
Momiyama, Yukihiko, 323
Moraes, A. P., 180
Morgan, P., 186
Moss, A. J., 180, 181
Moulopoulos, Spyridon D., 199
Murin, Jan, 29

Nadeau, Réginald, 311
Nakajima, T., 177
Nakashima, Mitsuyoshi, 41
Nasmith, James, 311
Niemelä, Kari, 11
Nishida, Y., 177
Nishiyama, A., 179
Nousiainen, Juha, 221, 233
Novak, Peter, 49
Novak, Vera, 49

Ogawa, S., 178
Ogino, K., 182
Oja, Sakari, 221, 233
Okada, Fumihiko, 169
Okada, Y., 178
Okamoto, Noboru, 347
Okamoto, Y., 184
Okazaki, O., 185
Oral, Derviş, 157
Osvald, Róbert, 301

Page, Richard L., 347
Pahlm, Olle, 347
Pai, Ramdas G., 143
Pai, Sudha M., 143
Palisaitis, Donald, 311
Palmeri, Sebastian T., 347
Pamir, Gülgün, 157
Papas, Konstantinos, 209
Park, Jeanny K., 329
Pasquarelli, A., 137
Pastore, C. A., 180
Patzak, A., 179
Pearl, William, 215
Perz, S., 185
Pileggi, F., 180
Pinski, Sergio L., 243
Pittaras, Andreas, 199
Platsch, Günther, 129
Pollard, Andrew E., 115
Préda, István, 23, 311
Psomadaki, Zoi D., 209
Puig, Jorge, 251

Ratti, G., 183
Rautaharju, Pentti, 182, 347
Rawles, John M., 143
Recke, Siegfried, 129
Riečanský, Igor, 149
Rim, Min Seon, 343
Rocha, Ana P., 251
Romani, G. L., 137
Rubartelli, Paolo, 189
Ruttkay-Nedecký, Ivan, 149, 301

Sadanaga, T., 178
Sakaguchi, Y., 177
Sakamoto, S., 177
Saltzberg, R., 186
Sapakova, Elena, 29
Sarker, Shukla, 105
Savard, Pierre, 311
Sawada, Y., 182
Scanavacca, M., 180
Schmid-Schönbein, H., 287
Schubert, E., 179
Selvester, Ronald H., 347
Sempos, C., 182
Seth, Kiernan, 105
Shenasa, Mohammad, 311
Sherief, Hassen T., 35
Shiga, Y., 179
Shimizu, Akihiko, 61
Shimizu, S., 179
Shirota, K., 182
Sideris, Dimitris A., 199
Sievänen, Harri, 11
Silka, Michael J., 329
Sosa, E. A., 180
Spitzer, Kenneth W., 115
Spodick, D. H., 182
Spyropoulos, George S., 199
Sterba, Richard, 243
Stieber, J., 185
Sugano, Shigeru, 333
Surawicz, Borys, 275
Szathmáry, Vavrinec, 301

Takatsu, F., 179
Tan, A. T. H., 203
Tedesco, M. A., 183
Thomas, C. W., 186
Tiňová, M., 178
Tobias, N., 180
Tolan, Gil, 347
Toumanidis, Savvas T., 199
Toutouzas, Pavlos K., 209
Trohman, Richard G., 243
Tsai, Chang-Her, 163
Tsubone, Hirokazu, 333
Tsutsumi, N., 178
Tsutsumi, T., 184
Turjanmaa, Väinö, 11
Turzová, Marie, 255
Tyšler, Milan, 255

Uemura, S., 177
Uno, K., 178
Uusitalo, Arto, 11

Vanžurová, Eva, 301
von der Emde, Jürgen, 129
Voss, A., 186

Wagner, Galen S., 347
Waldura, J., 184
Wang, Tzong-Luen, 91
Watari, M., 179
Wei, Daming, 184, 185
Weisman, Idelle M., 215
Weniger, Josef, 129
White, Richard, 347
White, Thomas, 347
Witt, A., 186

Yano, Katsusuke, 61, 71
Yayou, Ken-ichi, 333
Yoon, Jin, 343
Yoshikawa, T., 178
Yoshimota, T., 178

Zareba, W., 180, 181
Zeballos, R. Jorge, 215
Zhou, S. H., 181, 182
Zubair, Imran, 115